REMARKS/ARGUMENTS

The present application is a Request for Continued Examination under 37 C.F.R. §1.114 of pending U.S. Application Serial Number 09/131,141, which was filed on August 7, 1998. This Amendment is to support the Request for Continued Examination concurrently filed therein.

In the final Office Action dated June 3, 2004, the Office Action rejected claims 9, 11, 14, and 19-22 under 35 U.S.C. § 102, and claims 1-8, 10, 12-13 and 15-18 under 35 U.S.C. § 103. Claims 1, 9, 15 and 19 have been amended. Reconsideration in light of the amendments and remarks made herein is respectfully requested.

Double Patenting

The final Office Action rejects claims 1-22 under the judicially created doctrine of the obviousness-type double patenting as being unpatentable over claims 1-18 of copending Application No. 09/271,011. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented. Applicants respectfully request that the terminal disclaimer be filed after the allowance of the pending claims.

Rejections Under 35 U.S.C. §102 and §103

In the final Office Action, claims 9, 11 and 14 were rejected under 35 U.S.C. § 102(e) as being anticipated by Simmons (US 6,192,028) and claims 19-22 were rejected under 35 U.S.C. § 102(e) as being anticipated by Muller et al. (US 6,021,132). In addition, claims 1-3 and 6-8 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Bellenger (US 5,802,054) in view of Muller (US 6,021,132) and also claims 4-5 were rejected under 35 U.S.C. 103(a) as being unpatentable over Bellenger in view of Muller and Frazier (US 6,092,202) and claims 10, 12-13 and 15-18 were rejected under 35 U.S.C. 103(a) as being unpatentable over Simmons in view of Frazier.

Applicants respectfully traverse the rejections and reiterate the arguments presented in the previous response.

Bellenger discloses an atomic network switch with integrated circuit switch nodes. The network switch receives and transmits standard LAN frames on physical interfaces (Bellenger, col. 6, lines 42-43). There are two internal modes for routing frames inside the switch. In the

base mode, each node routes frames using a switch route header attached to the beginning of the regular LAN frame (Bellenger, col. 6, lines 54-57). In the look-up mode, the Ethernet addresses, or other fields of the control header of the frame are utilized to access a route table (Bellenger, col. 7, lines 1-3). A processor executes the node route logic for the node (Bellenger, col. 10, line 32). The process begins with the receipt of the frame on a particular port (Bellenger, col. 10, lines 35-36; Figure 4, step 300).

The final Office Action states that "The Office Action has clearly pointed out in '028 patent, col. 7, lines 46-51, Simmons discloses the frame are received and promoted to system state as a whole, not fragmented." However, Applicants did not argue that the complete frame is received. Applicants argue that the promotion order is in accordance to *a complete reception of the frame* (as opposed to initial reception or partial reception). In other words, the order in which the frame is promoted to a system state is based on the complete reception of the frame. Since the frames are transmitted over a number of communication links, the time for each complete reception may be different. See Specification page 16, lines 14-20.

Simmons and Muller do not address the multiple links. In Simmons, each frame entering the switch is transmitted either to one or multiple ports (Simmons, col. 7, lines 37-44). There is no promotion of frames to a system state. The switch does not keep track of the completion of the received frames on multiple links. Similarly, Muller discloses receiving a packet on a given input port, not a plurality of frames transmitted over a plurality of communication links. In fact, Muller teaches away from the invention since the forwarding decision for a received packet is complete before the next packet arrives at that input port (Muller, col. 6, lines 48-51). Therefore, it is impossible to maintain a "relative order" and to determine an order according to complete reception of the frame.

The final Office Action states that Simmons and Muller address the multiple links (Final Office Action, page 10). However, the existence of a plurality of links does not mean that an aggregate link is formed or considered. "Aggregate" is defined by The American Heritage Dictionary, Second College Edition, published by Houghton Mifflin Company, 1985, as "Gathered together into a mass or sum so as to constitute a whole; total" (Definition 1). The MACs 60 and 62 as shown in Figure 2A of Simmons clearly show two separate elements Each MAC has its own receive FIFO and transmit FIFO (Simmons, col. 7, lines 44-46). Frames are placed in the corresponding receive FIFO (Simmons, col. 7, lines 47-49). Therefore, the

processing of the data frames is performed on the FIFO's individually without regard to one another, not as an aggregate link.

Neither Bellenger nor Muller discloses, suggests, or renders obvious: (1) *asserting a plurality of indications each denoting the start of frame transmission of a flow sensitive to out-of-order frame sequences on a corresponding communication link*; (2) *generating a pointer value associated with a corresponding frame being transmitted over the corresponding communication link, the pointer value being based, at least in part, on a relative order in which the respective indication is asserted and differing from a pointer value associated with remaining frames of the plurality of frames*, and (3) the *corresponding pointer value associated with each respective frame being used to determine an order according to complete reception of the frame in which the respective frame is promoted from a receive buffer to a system state without modifying the respective frame.*

The final Office Action states that Bellenger discloses "for each indication being received, generating a corresponding pointer value (tag or hash value) associated with the respective frame being transmitted over the corresponding communication link based, at least in part, on a relative order in which the respective indication is asserted, the corresponding pointer value associated with each respective frame being used to determine an order according to complete reception of the frame (col. 6, lines 45-51) in which the respective frame is promoted from a receive buffer (221) to a system state (ports 201-1 to 2-1-N). Applicants respectfully disagree. The buffer 221 does not store a pointer buffer. It stores the frames themselves (Bellenger, col. 10, lines 9-13). In addition, a tag or hash value is not the same as a pointer value associated with a frame. The tag or the hash value is used to access the switch route table, not the frame (Bellenger, col. 7, lines 5-8; col. 9, lines 6-7). Bellenger merely discloses the node route logic begins forwarding frames after it receives notification from the remote system that it is clear to forward frames (Bellenger, col. 3, lines 61-65). The order of transmission is preserved according to receiving a notification from a remote system, not by using the pointer value, and not according to complete reception of the frame. Claims 1, 9, 15 and 19 have been amended to further clarify the claim language.

Accordingly, Applicants respectfully request withdrawal of the 35 U.S.C. § 102(e) and 35 U.S.C. § 103(a) rejections.

Conclusion

Applicants respectfully request that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

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